

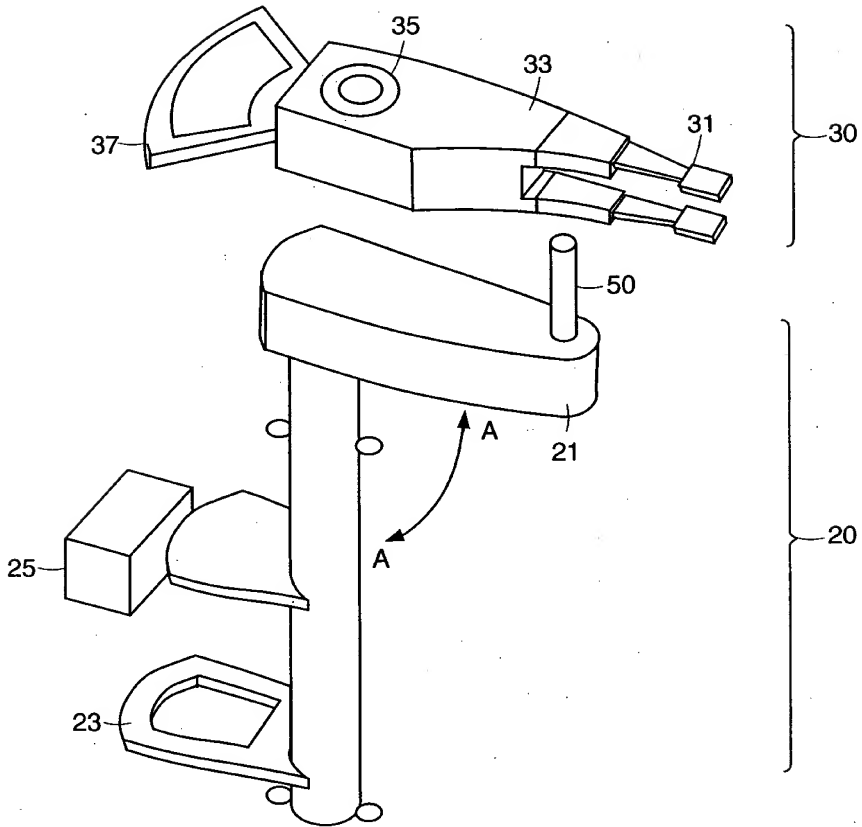
10

FIG. 1
PRIOR ART

10'

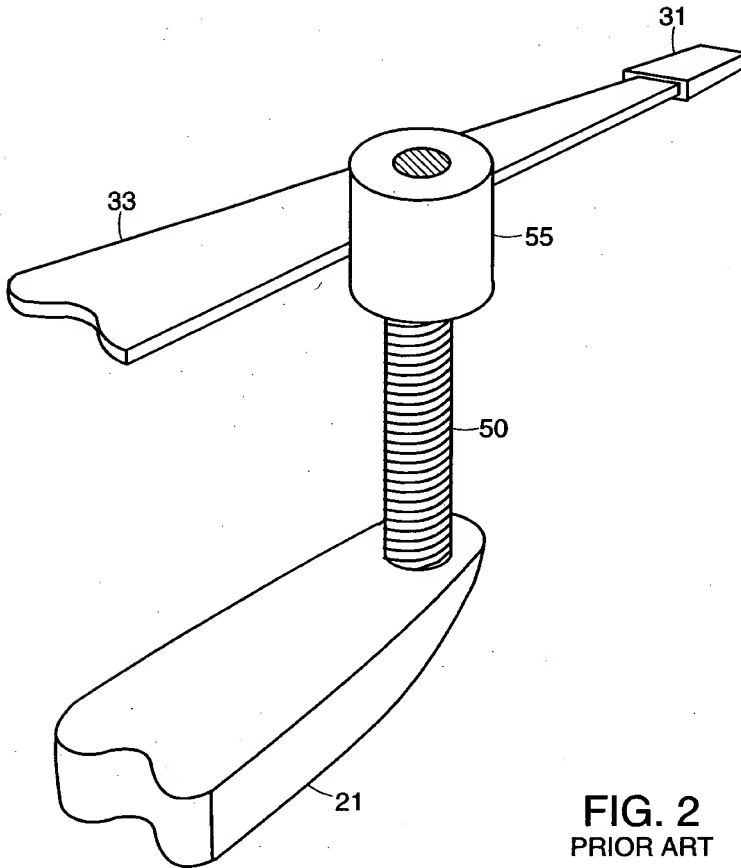


FIG. 2
PRIOR ART

FIG. 4
PRIOR ART

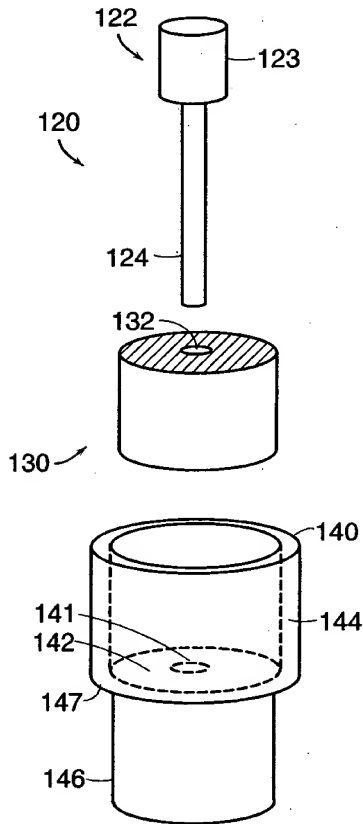
100

FIG. 5

5/16

100

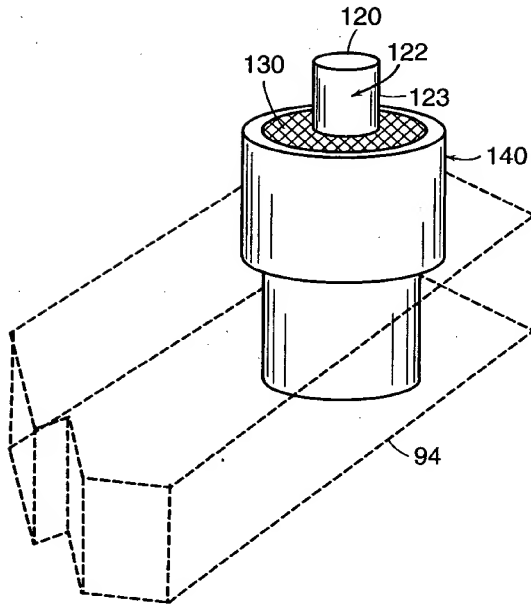


FIG. 6

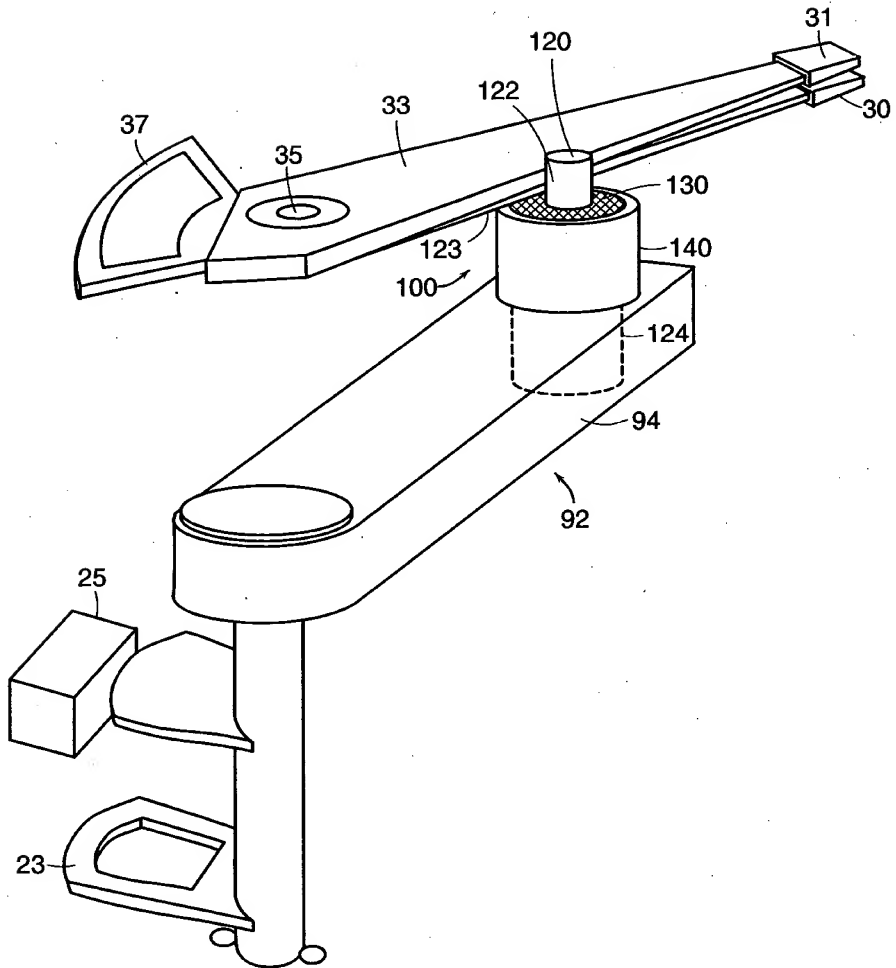
90

FIG. 6A

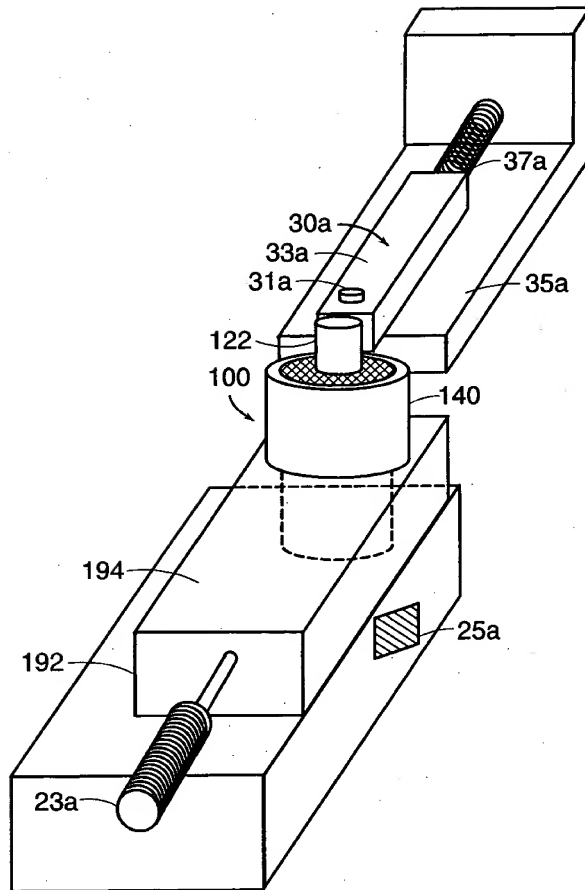
190

FIG. 6B



100

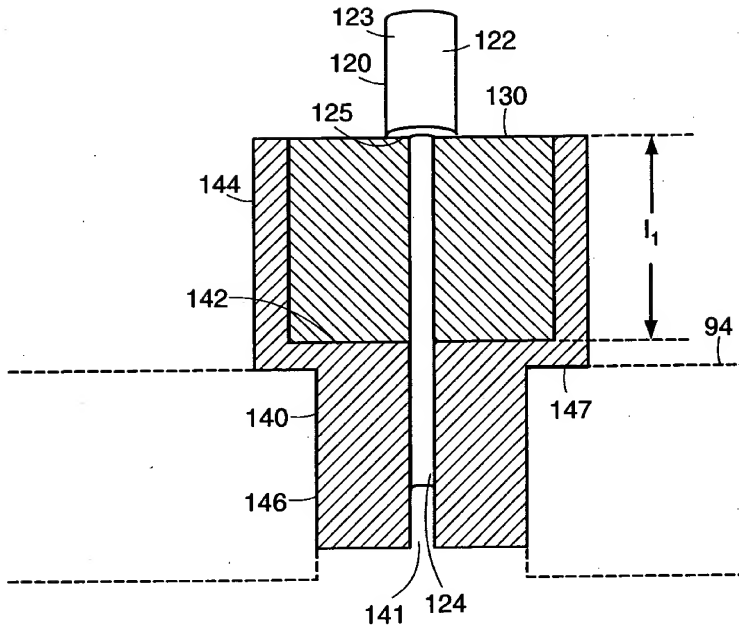


FIG. 7

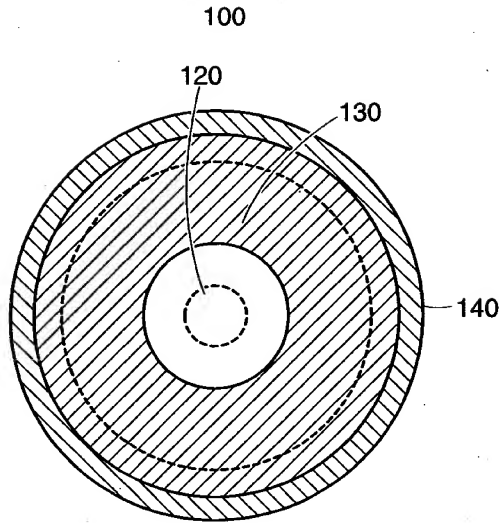


FIG. 8

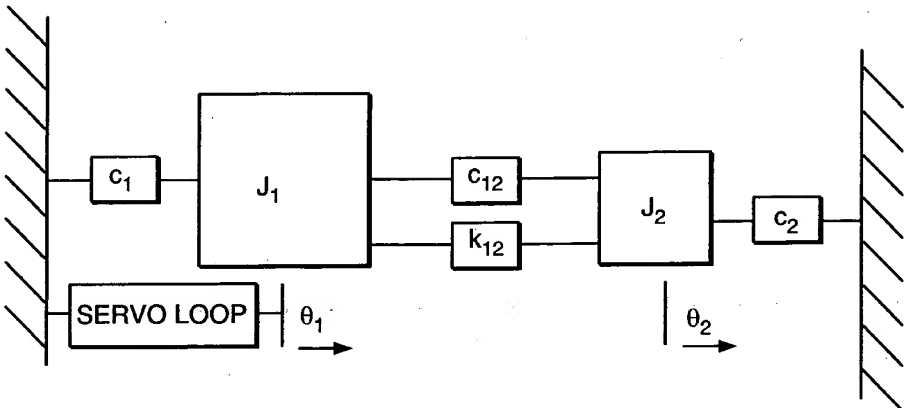
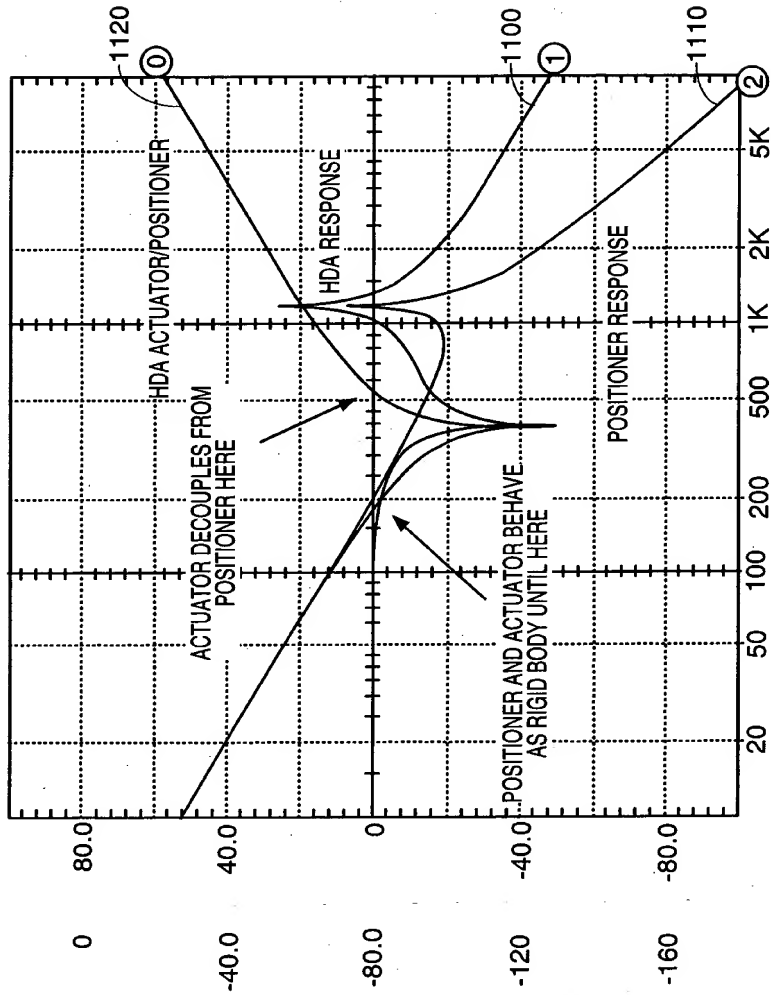


FIG. 9

20070 ST15560



FREQUENCY IN Hz

BODE RESPONSE WITH TORQUE DISTURBANCE AT HDA ACTUATOR

FIG. 10

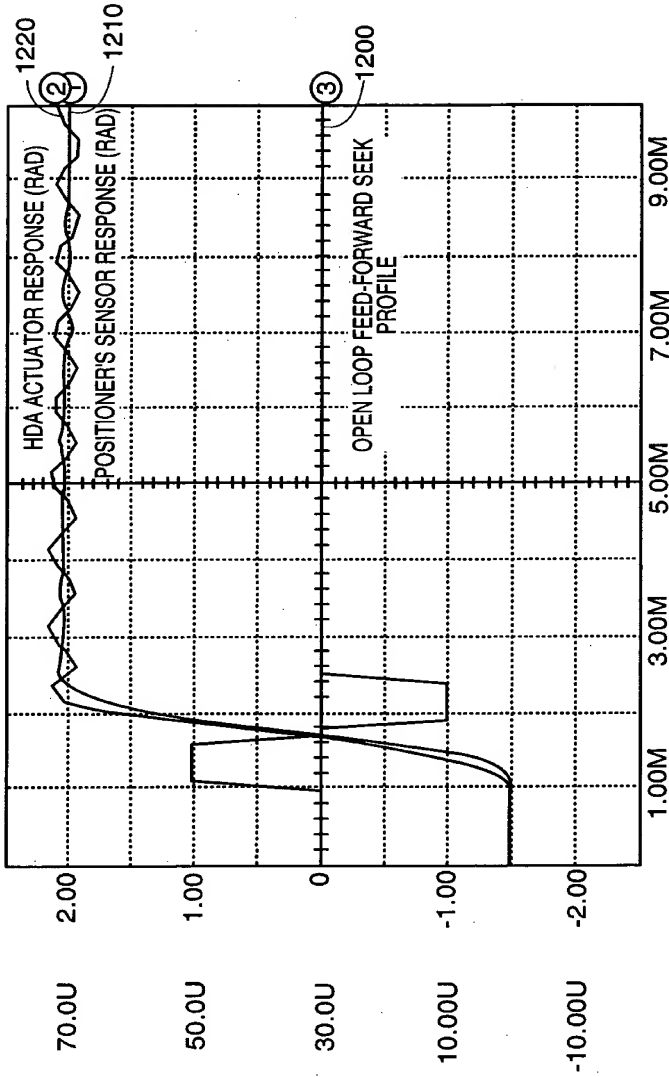
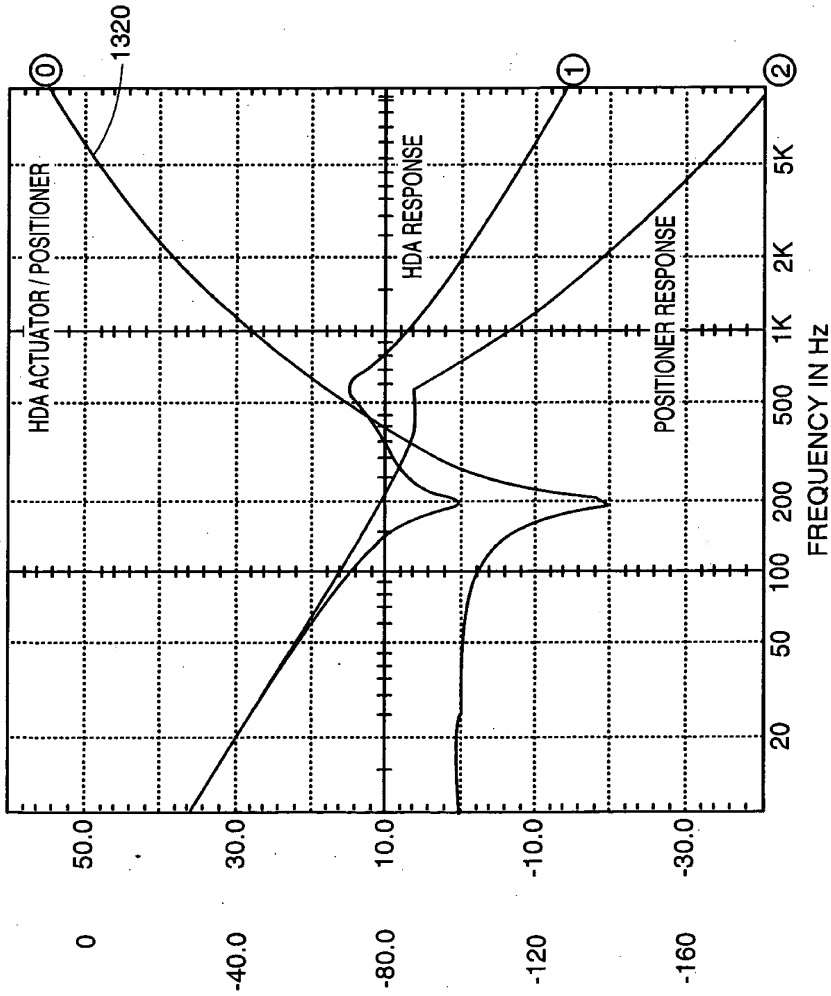


FIG. 11

TIME IN SECS (M=MILLISECONDS)
POSITIONER AND HDA RESPONSE WITH BANG-BANG
SEEK PROFILE WITH STIFF PIN

200070 STN5560



RESPONSE DUE TO TORQUE DISTURBANCE AT HDA ACTUATOR
WITH SOFT MATERIAL BETWEEN HDA AND POSITIONER

FIG. 12

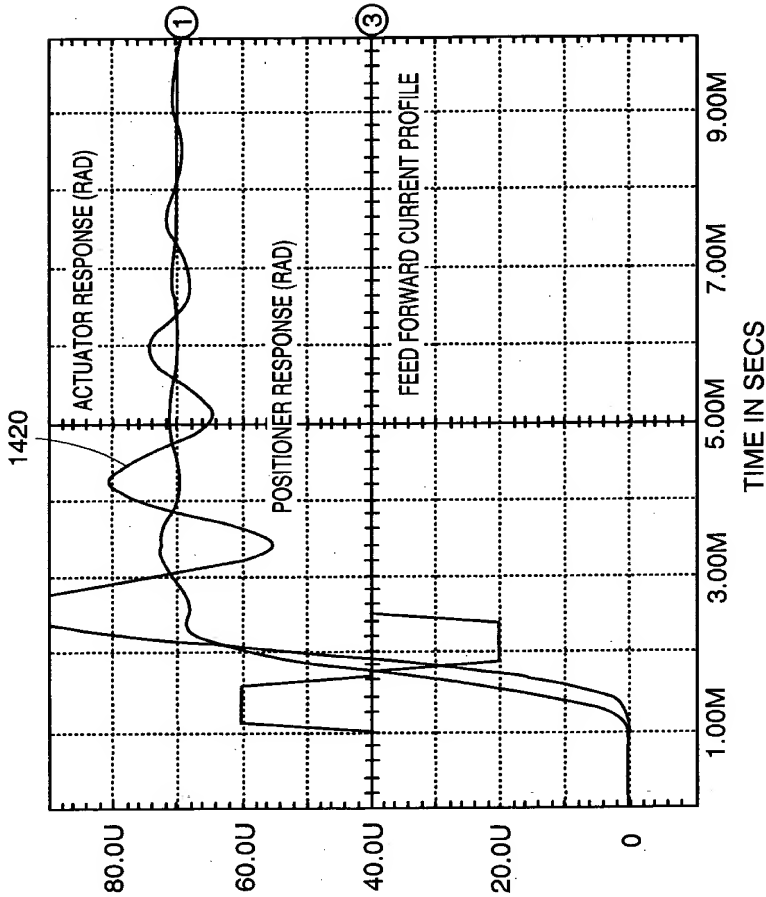
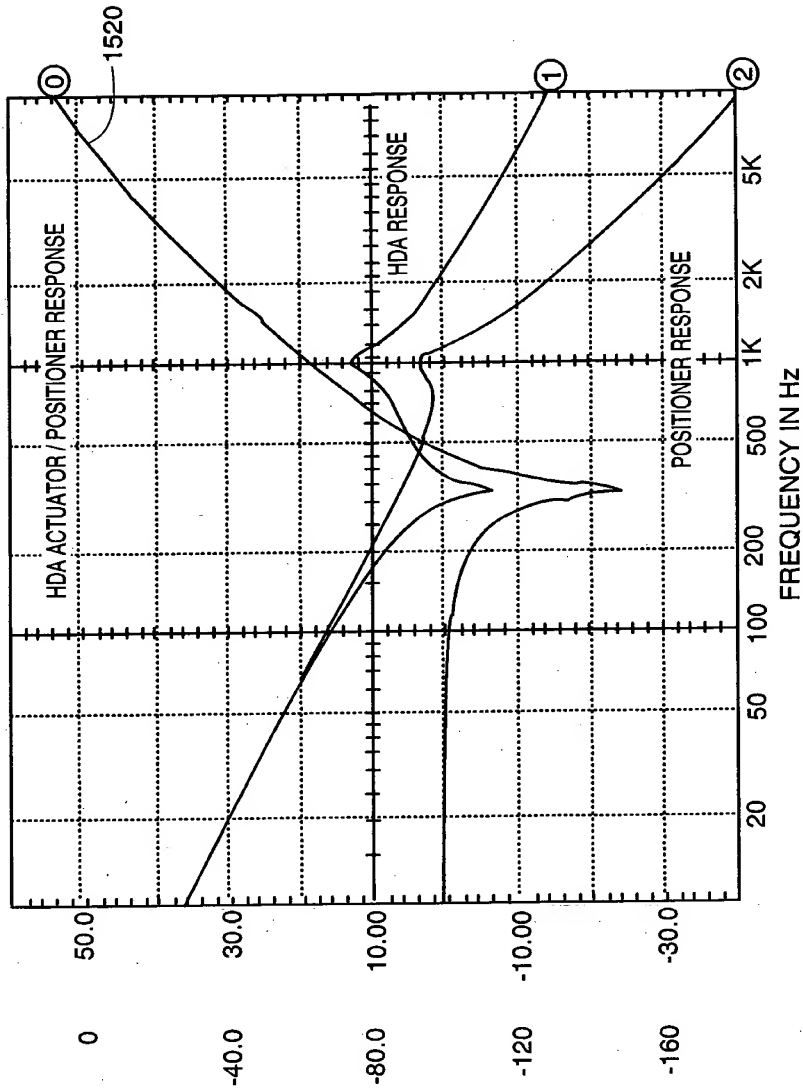


FIG. 13

ACTUATOR AND POSITIONER RESPONSE FOR STANDARD
BANG-BANG SEEK WITH SOFT MATERIAL

20010-5715500

RESPONSE FOR TORQUE DISTURBANCE AT ACTUATOR WITH ENG PIN
FIG. 14

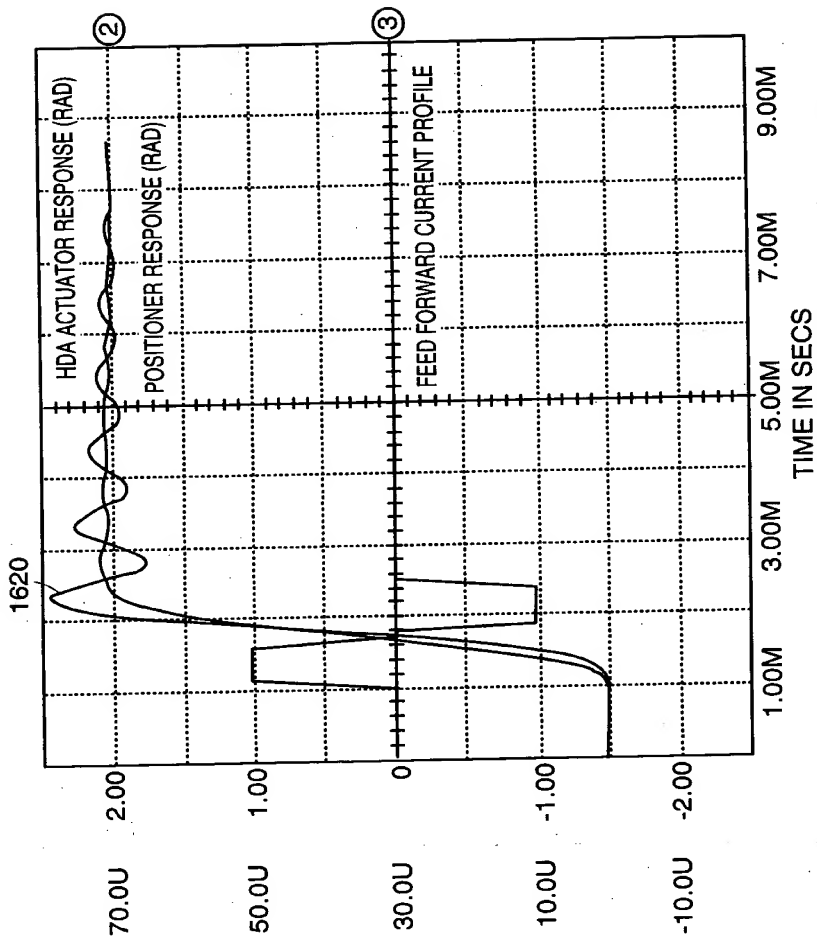


FIG. 15

POSITIONER AND ACTUATOR RESPONSE WITH ENGINEERED PIN

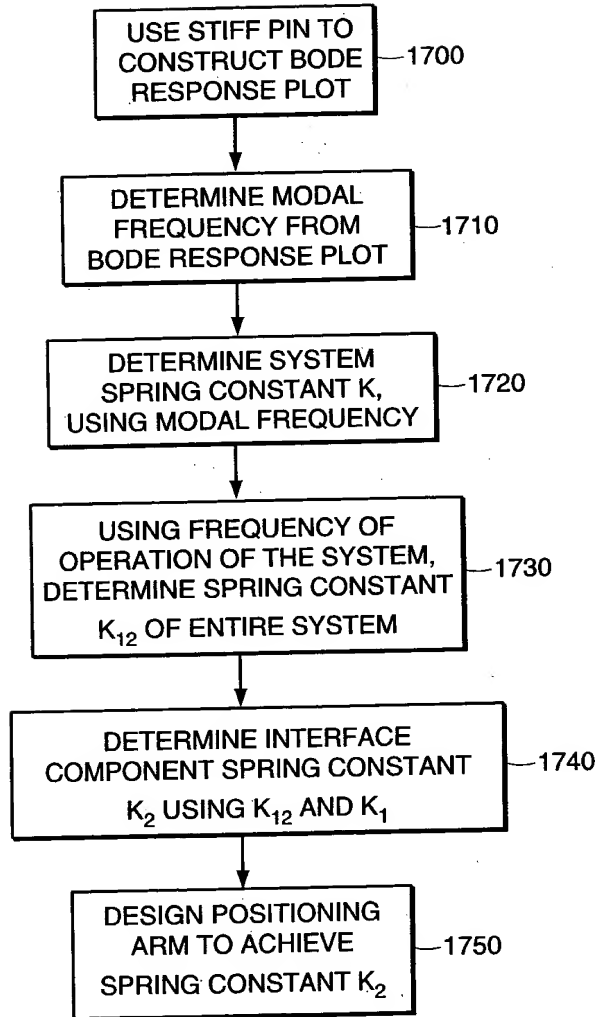


FIG. 16